

AMENDED CLAIMS

1 1. (Three Times Amended) A jet engine [which produces a supersonic stream of
2 air, said engine] comprising:

3 [a structure adapted to provide a compression ratio sufficient to produce a supersonic
4 thrust;]

5 an air intake end [and an exhaust end] to intake air, the air being divided into at least
6 first and second streams; and

7 [said exhaust end having a partition that divides said exhaust end into a first side and
8 a second side such that a first stream exits said exhaust end on said first side and a second
9 stream of heated air exits said exhaust end on said second side;

10 a combustion chamber for heating adapted to heat said first stream such that said first
11 stream is expelled from said exhaust end of said engine to produce said supersonic thrust,
12 and]

13 a [heating] control mechanism [adapted to heat said second stream such that said
14 second stream is expelled from said exhaust end of said jet engine to produce a subsonic
15 thrust adjacent to said first thrust and thereby prevent Mach waves from said supersonic
16 thrust] to control at least one of temperature and velocity of at least one of the first stream
17 and the second stream such that the first stream is supersonic with respect to an ambient
18 speed of sound in an ambient stream, and velocity difference between the second stream and
19 the ambient stream is subsonic with respect to the ambient speed of sound.

1 14. (Amended) A jet engine [in use propelling an aircraft at a supersonic speed
2 together with the exhaust stream thereof, said engine] comprising:

3 an air intake end [and an exhaust end] to intake air, the air being divided into at least
4 first and second streams; and

5 [a first passage and a second passage extending between said air intake end and said
6 exhaust end;

7 a combustion chamber in fluid communication with and located along said first
8 passage such that a portion of said first passage is disposed to receive a first flow of exhaust
9 between said combustion chamber and said exhaust end;

10 said first flow of exhaust forming said supersonic exhaust stream upon exiting said
11 engine;]

12 a [heating] control mechanism [in fluid communication with and located along said
13 second passage such that a portion of said second passage is disposed to receive a second
14 flow of exhaust between said heating mechanism and said exhaust end;
15 said second flow of exhaust forming a subsonic exhaust stream upon exiting said
16 engine; and
17 said supersonic exhaust stream at least partially enveloped by said subsonic exhaust
18 stream] to control at least one of temperature and velocity of at least one of the first and
19 second streams such that the first and second streams form supersonic and subsonic streams
20 with respect to an ambient speed of sound in an ambient stream upon exiting an exhaust end,
21 the subsonic stream at least partially surrounding the supersonic stream.

**STATEMENT OF STATUS AND SUPPORT FOR CLAIM CHANGES IN
ACCORDANCE TO 37 C.F.R. §1.173(c)**

Claim Number	Status	Support in disclosure and explanation
1 and 14	pending	col. 2 (lines 20-22; 57-60)